

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A heat exchanger, in particular for motor vehicles, for a first flow medium and a second flow medium, having a tube bundle (3) which includes a multiplicity of tubes (3a), a first tube plate (4) and a second tube plate, a housing (5) and inlet and outlet connection pieces (2, 6) for the first flow medium, the tubes (3a) having tube ends which are held and sealed in the tube plates, and the housing (5) being connected on the one hand to the tube plates so as to form a cooling chamber (9) for the second flow medium and on the other hand at the end sides to the inlet and outlet connection pieces (2, 6), characterized in that the first tube plate (4) and the tubes (3a) are formed integrally.

2. (currently amended) The heat exchanger as claimed in claim 1, ~~characterized in that~~ wherein the first tube plate (12), the tubes (13) and the housing (14) are formed integrally.

3. (currently amended) The heat exchanger as claimed in ~~one of the preceding claims, characterized in that~~ claim 1, wherein the integrally formed parts are produced by impact extrusion.

4. (currently amended) The heat exchanger as claimed in ~~one of the preceding claims, characterized in that~~ claim 1, wherein the integrally formed parts are produced by impact extrusion, are preferably produced from an aluminum extrusion alloy.

5. (currently amended) The heat exchanger as claimed in claim 1, ~~2, 3 or 4, characterized in that~~ wherein the cross section (3b) of the tubes (3a) is round, rectangular or polygonal.

6. (currently amended) The heat exchanger as claimed in ~~one of claims 1 to 5,~~
~~characterized in that~~ claim 1, wherein a rounded transition region is provided between the
tubes (3a, 13) and the first tube plate (4, 12), in particular on the outer side of the tubes.

7. (currently amended) The heat exchanger as claimed in ~~one of claims 1 to 6,~~
~~characterized in that~~ claim 1, wherein the tubes (3a, 13) have fins or turbulence generators on
their inner and/or outer side in order to improve the heat transfer.

8. (currently amended) The heat exchanger as claimed in ~~one of claims 1 to 7,~~
~~characterized in that~~ claim 1, wherein the inlet and outlet connection pieces (2, 6; 15, 16) and
the tubes (3a, 13) of the tube bundle are arranged aligned with one another.

9. (currently amended) The heat exchanger as claimed in ~~one of claims 1 to 8,~~
~~characterized in that~~ claim 1, wherein the inlet and outlet connection pieces (2, 6; 15, 16), the
second tube plate (14) and/or the housing (5) are cohesively joined to the integral, impact-
extruded part (3, 4; 11, 12).

10. (currently amended) The heat exchanger as claimed in ~~one of claims 1 to 9,~~
~~characterized in that~~ claim 1, wherein the housing (5, 11) has an inlet opening (7) and an
outlet opening (8) for the liquid flow medium.

11. (currently amended) The heat exchanger as claimed in ~~one of claims 1 to 10,~~
~~characterized in that~~ claim 1, wherein charge air can flow through the tubes (3a, 13) and
coolant for an internal combustion engine of a motor vehicle can flow through the housing (5,
11).

12. (currently amended) The heat exchanger as claimed in ~~one of the preceding~~
~~claims, characterized in that~~ claim 1, wherein the first medium is a liquid or gaseous medium.

13. (currently amended) The heat exchanger as claimed in ~~one of the preceding claims, characterized in that~~ claim 1, wherein the second medium is a liquid or gaseous medium.

14. (currently amended) The use of the heat exchanger as claimed in ~~one of claims 1 to 13~~ claim 1 as a primary cooler or intercooler or cooler for the charge air or the exhaust gas of an internal combustion engine of a motor vehicle.